

CLASSIFICATION **FOR OFFICIAL USE ONLY** *Unclassified - 000* STAT
 SECURITY INFORMATION **RESTRICTED**
 CENTRAL INTELLIGENCE AGENCY
 INFORMATION FROM
 FOREIGN DOCUMENTS OR RADIO BROADCASTS CD NO.

COUNTRY Hungary
 SUBJECT Economic - Heavy industry, plan
 HOW PUBLISHED Monthly periodical
 WHERE PUBLISHED Budapest
 DATE PUBLISHED Feb 1949
 LANGUAGE Hungarian
 DATE OF INFORMATION 1949
 DATE DIST. 6 Dec 1951
 NO. OF PAGES 7
 SUPPLEMENT TO REPORT NO.

THIS DOCUMENT CONTAINS INFORMATION AFFECTING THE NATIONAL DEFENSE OF THE UNITED STATES WITHIN THE MEANING OF ESPIONAGE ACT 50 U.S.C. 31 AND 32, AS AMENDED. ITS TRANSMISSION OR THE REVELATION OF ITS CONTENTS IN ANY MANNER TO AN UNAUTHORIZED PERSON IS PROHIBITED BY LAW. REPRODUCTION OF THIS FORM IS PROHIBITED.

THIS IS UNEVALUATED INFORMATION

SOURCE Gep, No 1, 1, 1949.HUNGARIAN HEAVY INDUSTRY IN THE THREE-YEAR PLAN

Janos Sebestyen

The present output of heavy industry is higher than it was before the war. In the last year of the three-year plan the output is to be 170 percent that of the last year before the war. The output of Hungarian heavy industry in the third plan year should total 4.22 million forints at current values, i.e., 51.7 percent more than in the first plan year and 18.3 percent more than in the second plan year. In the iron and steel industry, the increase should be 43.4 percent compared to the first plan year; in the engineering industry, 64.6 percent; and in the consumer goods industry, 30 percent.

The main emphasis is on the increase of output of the engineering industry, while the development of the iron and steel industry is to be slower. This fact may give rise to many difficulties. In 1948, only 52 percent of the output of the iron and steel industry was used for further processing in the engineering industry, while 48 percent of the output was used without further changes (rails, sections used in the building industry, etc.), either on the home or the export market. Raw-material shortages are to be anticipated in the engineering industry if expansion of that industry will not be accompanied by a quicker development in the iron and steel industry.

There are serious difficulties to be overcome, as it usually takes a long time to carry out capital investments in the iron and steel industry. Also, the cost of plant capital for a given percentage of increased output is much higher in the iron and steel industry than in any other industry. It is also more difficult to obtain a sizeable increase in production in the iron and steel industry by reorganization of the production and small-scale investments than, for instance, in some branches of the engineering industry. It is, therefore, of utmost importance from the viewpoint of preparatory work to the Five-Year Plan to estimate correctly the required output of the iron and steel industry and to determine the necessary capital investment.

- 1 -

CLASSIFICATION				FOR OFFICIAL USE ONLY											
STATE	<input checked="" type="checkbox"/>	NAVY	<input checked="" type="checkbox"/>	NSRB											
ARMY	<input checked="" type="checkbox"/>	AIR	<input checked="" type="checkbox"/>	FBI											

STAT

The results of capital investments made in 1948 in the Ozd and Diosgyör iron and steel works are already noticeable in the output figures. After completion of the two ore-preparation and agglomeration plants, the production of pig iron will be more economical owing to reduced coke consumption. It will be possible to utilize pulverized ore and, owing to more uniform size of the ore, the blast-furnace process will be quicker. It will be possible to increase the output by 10 to 12 percent. The twelfth open-hearth furnace at Ozd and the new, large open-hearth and mixing furnaces at Diosgyör, which will be ready this year, will result in full utilization of the rolling-mill capacity. Except for a few roll sets, which were overloaded, the rolling-mill capacity could not be fully utilized owing to insufficient output of the steel plants. It is now necessary to ascertain whether there is any hidden rolling-mill capacity which cannot be utilized at present, owing to bad layout, inadequate furnace capacity, or other factors.

The largest relative increase of production will be at Diosgyör, because it received most of the new capital and also because other plants, particularly the Matyas Rakosi Works, were quicker in increasing their output to the maximum plant capacity. In the first year of the three-year plan, Diosgyör produced only 400 tons of steel castings a month, while the present output is double that figure and is to be increased to 1,000 tons a month by the end of 1949. It is difficult to increase the output in the Matyas Rakosi Works, because, in the tube mills for instance, the production was higher than prewar or at any time during the war, and the percentage of high-quality tubes is larger than it was before, despite the fact that the plant is obsolete and the working conditions are unfavorable.

The shortage in steel plate has ceased, except for a few special types, e.g., transformer and dynamo plates which are still in short supply. In 1949, the planned output of transformer plates is to be double the output of the first plan year. Introduction of better material and of a lukewarm rolling process made possible production of better-quality transformer plates, but an effort must be made to ensure a yearly production of 2,500 tons of transformer plates by learning the modern methods of other countries.

The Zagyvarona ferrosilicon plant, which was placed in operation last year, has considerably improved the supply of ferrosilicon. This year, its production will be about 3,400 tons, i.e., about 2,200 tons of pure silicon. An even greater quantity is needed by the developing steelworks, and it is urgently necessary to increase production of these alloys. The Zagyvarona plant is unfavorably situated from the geographical standpoint, because it is necessary to reload twice both the raw materials and the finished products. Originally, the plant was built at Zagyvarona because surplus power was available there, but this is no longer the case, and it will be necessary to build new works for ferrosilicon production nearer to the quartz deposits, the sources of power supply, and the processing industries. It is likely that the sites for the new plant will be chosen near Tokaj and Satorughely.

Ferromanganese is still being produced at Ozd, but increasing production of raw steel requires an increase in pig iron production, and the whole production capacity will be required for this purpose by next year.

It is therefore necessary to build the proposed ferromanganese plant and to modernize the manganese-ore mines at Urkut. Production, with the utilization of coal from Komio and Pecs, should be begun next year.

Iron-ore mining has not increased since the first plan year, because only very limited quantities of these ores can be utilized owing to their poor iron content. To reduce the dependence of the country on foreign iron ores, prospecting for new deposits in Hungary will be intensified considerably this year.

STAT

MAVAG (Steel and Iron Works of the Hungarian State Railroads) could produce considerably more locomotives and the Matyas Rakosi Works would be able to produce considerably more machine tools if their requirements of iron and steel castings could be satisfied fully. The Hungarian foundries are still operated with very obsolete methods and equipment, and not one of them is fully up to date in regard to equipment, sand technique, and mechanical handling of the materials. The Hungarian steel-foundry engineers are shy about introducing large-scale application of casting in green sand moulds, although foreign practice proves that such methods are essential for high output figures. Synthetic sands are not manufactured or used in Hungary, and in many Hungarian foundries sand analysis also appears to be unknown.

For these reasons, the total rebuilding of the Hofherr Schrantz and Matyas Rakosi iron foundries has been started already, and the total rebuilding, mechanization, and modernization of the MAVAG steel foundries has also begun. Subsequently, similar work will be carried out in the second half of this year at the Diosgyor iron and steel foundries and the Ganz steel foundry. Production of steel castings, planned at 26,100 tons for 1949, will be increased to 35,000 tons a year after completion of the above-mentioned rebuilding and re-equipment on equal floor space. Modernization is also to be introduced in cleaning the castings. The anticipated increase of output in iron foundries is similar to that of the steel foundries.

MAVAG and Ganz will start combined production of the new type of the GANZ-KANDO single-phase, 50-cycles-per-second locomotives. The first of a series of large diesel-electric trains, which are to be supplied to the USSR, is also to be ready this summer. In 1949, the output of railroad cars is to be 60 percent larger than in the first plan year, and more passenger cars are to be built this year than in any previous year. This year, the output of the Ganz Shipyards will increase by 40 percent, but the full effect of the capital investments will be felt only next year, because the new buildings are not expected to be ready until autumn.

Many changes will occur in the manufacture of cranes, lifting gear, and other mechanical equipment. At present, specialization is being carried out, and the formation of a common crane-planning office is also in progress. MAVAG will start large-scale production of steam-powered railroad cranes and it will have the only plant in Central Europe for such large-scale manufacture. Electric- and internal-combustion-engined cars will also be manufactured there.

In 1949, power output is also to be increased considerably. In the spring of 1949, a high-pressure power-generation unit will be put into operation in the Matyas Rakosi Works, and, during the summer, another one will be put into operation in a site on the Matra Mountain. The production of the plant required for the Hungarian power-supply-expansion program (about 300,000 kilowatts' total capacity) will also be started this year. Large export commitments also will make it necessary to reorganize completely some branches of production, e.g., that of steam turbines.

Heavy tasks are ahead in the machine-tool industry, and it is urgently necessary to introduce production of modern turret lathes, horizontal boring mills, planers, grinding machines, etc. It is necessary to increase the production of the machine-tool industry to a value of 400 million forints a year, at least.

The new building for diesel-engine manufacture in the Ganz Works is to be ready in the summer, and it is anticipated that in 1949, its production of diesel engines will be more than double the 1948 output. The production of large compressors (piston type) and pumps will be stepped up considerably this year. Large export orders have to be satisfied, particularly compressors.

STAT

This year, the Hofherr Works are to produce over 2,500 tractors of the semi-diesel type. A suitable quantity of agricultural implements for these tractors will be produced by other Hungarian factories. The first series of the new type Hungarian tractor will be given practical tests this year. For the purpose of economic production and spare-part supply, it is to be equipped with diesel engines of the same type as those used in Hungarian busses and trucks.

This year, the production in the Ganz Electrical Work is to be stepped up by 155 percent, since demand for electrical machinery for home and foreign markets is fairly large.

The capital investment in Hungarian heavy industry, for the period of the three-year plan, amounts to about 500 million forints, of which about 160 million forints will be allotted to the iron and steel industry. The distribution of these investments is as follows: 35.5 million forints for ore preparation (agglomeration) and pig-iron production; 22 million forints for increasing the production of raw steel; 14 million for rolling-mill plants; 31 million forints for tube-manufacturing plants; 7 million for forging workshops; 23 million for iron foundries; and 26 million forints for steel foundries.

Other capital investments are for the industry producing means of transport (locomotives, cars, snips, buses, trucks), 63 million forints; electrical machinery industry, 22 million forints; other engineering industries, 70 million forints; completion of the Matyas Rakosi high-pressure power-generating station, 21 million forints; industrial water supply, canalization, and factory-road improvements, 9.5 million forints; and building of storage facilities, 17 million forints. About 75 percent of these investments will be spent in Hungary and about 24 percent abroad, mostly on machinery and equipment.

Of the total expenditure of 500 million forints, about 100 million will be spent on industrial buildings, 225 million forints on machinery and plants, 45 million on means of transportation and mechanical handling equipment, 24 million on industrial health projects, and 15 million on various improvements aimed at reducing industrial power consumption. In 1947, the power costs accounted for 13 percent of the value of the produced goods. They are only 8 percent at present, despite the fact that the cost of coal and electricity has gone up in the meantime.

In the first plan year, the cost of building amounted to about half the value of the capital investments, but, at present, building costs amount to less than one third of the capital investments. Expenditures for machinery and equipment have, however, increased considerably, and it is intended to replace this year a large part of the obsolete machine tools which are still in use. This year, a total of 70 million forints is to be spent for this purpose. It will also be possible to carry out work on building storage space, improving industrially important roads, canalization, and industrial water supply, which had to be delayed owing to financial difficulties.

At present, some of the most important capital investments being carried out are as follows:

(At Ozd.) the most important part of the investments is being spent on the completion of the Greenewald ore-agglomeration plant, an adjacent ore-grading plant, and an ore-transporting railroad line which will connect the two plants. In addition to reduction of the coke consumption in the blast-furnace plant, the internal-transport system of Ozd will be relieved of its overload. The bulk of the ore will be stored outside the factory, near the ore-grading plant, and from there, the graded ore will be transported in suitable quantities into bunkers, while the pulverized ore will be supplied to the ore-agglomeration plant.

STAT

At Borsonad, experiments are being continued in the production of transformer sheets of better quality. Large-scale investments will not be carried out here for the time being, because a new combine for production of thin sheets will be built during the Five-Year Plan. This factory will then be required for other special work, and investments will be made there only during the Five-Year Plan period.

At Salgotarjan will be concentrated the manufacture of steel products which are made of semifinished rolled sections by various cold-shaping processes, e.g., iron and steel wire, nails, bars, cold-rolled strips, etc. The manufacture of agricultural implements will continue there. The Diosgyor wire-drawing plant and the Csepel nail-manufacturing plant will be moved to Salgotarjan this year.

The largest amount of money will again be spent on Diosgyor. The construction of new, large buildings and rebuilding of some of the existing ones, which was started last year, will be continued this year. Most important here is the building and equipment of an ore-brick plant which has been planned by the Heavy Industry Planning Office. The open-hearth plant will be enlarged by a new 80-ton Maerz furnace, a 250-ton circular mixer, and the appropriate cranes. After these very modern furnaces will be in operation, the successive rebuilding of the obsolete furnaces will be started.

At least five or six of the eight furnaces in use at Diosgyor will be rebuilt with radex or magonite bricks. It is anticipated that this will result in a further increase of the output of liquid steel by 15-20 percent. This work will be carried out in one to 1½ years. The expansion of the iron and steel foundries will also be completed this year, and then their total or partial mechanization will be carried out. The forging shops at Diosgyor are the largest in Hungary. The requirements of the Five-Year Plan were taken into consideration when they were built.

In the Matyas Rakosi Works, the expansion of the tube-mill capacity represents the largest investment expenditure. The buildings will be enlarged considerably and a new set of rolling stands will be installed for the production of large-diameter tubes. The tube capacity of the plant will then be 60,000 tons a year, and the new tube stands will produce tubes which are most needed at present, i.e., tubes of large dimensions for oil bearings. These tubes are in demand for the home market as well as for the export market. Considerable expansion work is being carried out in the Matyas Rakosi Works iron foundry, and a new plant is to start operation by the end of this summer: it will be the most modern foundry in the country for machine-tool castings and will eliminate entirely the shortage of such castings in Hungary.

A large part of the investments to be made in the machine-manufacturing industry will be spent on the Ganz Works. The rebuilding of the structures destroyed during the war will be completed this year. The old, obsolete buildings will be replaced new, modern ones with modern equipment. Practically all the buildings of the old Ganz Wagon Factory will be new. Among others, the diesel-engine shop and the steel foundry are also being built anew. It is anticipated that a large increase in production will result from this work as early as the second half of this year. The new shipyard building and its equipment will also be completed, and then it will be possible to start demolishing the old buildings. In the Ganz Electrical Works, the turbogenerator assembly hall and the warehouses will be completed.

Rebuilding of the Magyar Wagon és Gépgyár (Hungarian Wagon and Machine Works) is almost completed, except for the aircraft section. The plants will be merged with MAVAG and will produce steam-operated cranes, mechanical material-handling trucks, etc.

STAT

Investments in MAVAG are mainly intended to eliminate the numerous obsolete, 40-year old or older machine tools still in use there.

Of the money to be devoted to industrial health projects, 24 million forints will be spent on the following: washing and dressing facilities in the Matyas Rakosi Works, the Lang Works, the Ganz Shipyards, Magyar Waggon es Gepyar, steelworks and heavy rolling mills at Dicsgyor, steelworks at Ozd, etc.

In addition to the above investment plan, 100 million forints are available for plant renovations.

The 1949 production of Hungarian heavy industry will represent about 4,200 million forints. Of this total, 15.5 percent will be exported, about 15.5 percent will be delivered as reparations, 17 percent will be required by the plants themselves, and 52 percent will be available for the Hungarian economy. The export and reparations demands are primarily for heavy machinery; in fact, 41 percent of the machinery output (representing 2,110,000,000 forints a year) will be used for export and reparations.

Long-term agreements have either been concluded or are being negotiated with the following countries. USSR, Poland, Bulgaria, etc., and also Argentina. Heavy machinery has played a primary part in all these agreements, particularly in the case of the USSR. These requirements led to the production of entirely new lines of heavy machinery, e.g., the previously mentioned steam-operated railroad cranes. Mechanical material-handling trucks, locomobiles, and excavators weighing 130 tons each will also be produced shortly.

In 1946, Hungarian heavy industry operated at a deficit of 40 million forints. Results have improved considerably in the meantime, and this industry is to have a profit of at least 400 million forints in 1949. The financial position is most difficult in the iron and steel industry, due partly to the lack of raw materials which have to be purchased abroad and partly to the obsolete equipment in use. This equipment could not be replaced adequately despite the large investments made during the three-year plan.

Despite this difficult situation, it is anticipated that the iron and steel industry will show a profit this year and contribute about 100 million forints in profits to the national economy. To reduce production costs still further, it is intended to introduce the Soviet system of accounting in large and small operating units and the brigades.

In addition to the above-mentioned expenditures, 130 million forints will be put aside as a reserve for later and much larger investments which are envisaged for the period of the Five-Year Plan.

The principal political and economical aims of the Five-Year Plan are as follows:

1. Develop heavy industry sufficiently to ensure the requirements of other industries, e.g., large-scale mechanization of agriculture, extension of the power supply, improvement of the transportation system, development of the mining industry, increase of exports to friendly and underdeveloped countries, and to ensure the maximum strategic independence of the country.

2. Expand home production of raw material for the heavy industry.

3. Improve the production structure of the industry so that types of goods are produced which are justified and can be manufactured at reasonable prices, i.e., heavy equipment which is produced in small series in most countries (e.g., locomotives and products which require relatively little machinery, etc.).

STAT

4. Put the country on its feet in regard to design and technical development. At present, Hungary is at least 10-15 years behind other countries and this gap is to be bridged by the purchase of foreign manufacturing licenses, information on foreign experience, samples, and training of designers.

5. During the Five-Year Plan, production costs must be reduced by 20-25 percent under the present level. At present, the production costs in Hungary are 30-35 percent above world prices, and the produced goods can be sold on the world markets only at a price about 25 percent under production costs.

The most important bottlenecks anticipated during the Five-Year Plan are quality rolled products, steel and iron castings, particularly high-grade and machine-tool castings; large forgings; obsolescence and lack of the machine tools (horizontal boring mills, large planing machines, modern automatic machines, etc.); insufficient number of skilled personnel (designers, metallurgists, research engineers, etc.), and difficulties in obtaining certain supplies from abroad (ball bearings, heavy nonferrous metals, ferroalloys, machine tools, and, frequently, basic materials for the heavy industry).

During the Five-Year Plan, it is intended to close down small firms and to concentrate their production in medium-sized factories with 500-1,000 employees. It is also intended to discontinue the manufacture of various products in the existing large factories, if these products can be manufactured in medium-sized plants and are a hindrance to the specialized large-scale production of goods for which the large factory is mainly suited. In addition to the existing medium-sized factories, about 10-15 new plants are to be built, each having a useful floor space of 4,000-6,000 square meters.

According to statistics, about 20 percent of the machine tools in use in Hungarian industry are modern, while about 80 percent are obsolescent, and many of these are fit only for scrap. It is the aim of the Five-Year Plan to reverse this ratio. The author has visited factories in Czechoslovakia, Italy, Sweden, England, and Austria and found that the percentage of obsolescent machine tools is never above 20 percent and, in many places, considerably lower. It will therefore be necessary to replace about 5,000-6,000 machine tools. In addition, new machine tools will also be necessary for stepping up the productive capacity.

To improve production methods, more attention must be given to modern planning and to better tools, jigs, and measuring instruments.

Great emphasis is laid on the improvement of mechanical handling of the materials and the extended use of conveyor belts which will determine the speed of production in a given section.

Building work in Hungary is still too expensive and the designs are too heavy. Industrial buildings in England and Germany are much lighter. Since building costs represent 30-50 percent of the total investments, it is vital to study the problem carefully and to develop cheaper designs.

Most difficulties are anticipated in the iron and steel industry. In 1949, the supply of iron and steel to the Hungarian industry will be adequate, but the position will be difficult in 1950. If the situation is not handled with sufficient care, there will be serious supply difficulties in 1951 and 1952. For this reason, expansion of the iron and steel industry will be the most important task in the Five-Year Plan. Work on the Mohacs combine (which, according to reports in the emigre press, has been abandoned in favor of the new steel plant at Dunapentele) will be started this year; the combine should be ready in 1952. This combine is to produce 250,000 tons of rolled-steel goods a year and will use Hungarian coke. To relieve the steel shortage until this combine is in operation, expansion of some of the existing plants must be started this year. The building of the Urkut ferromanganese works and preparations for the building of a new ferrosilicon plant must also be started this year.

- E N D -

- 7 -